PATENT COOPERATION TREATY

PCT

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference IC01-04PCT	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/US04/00847	International filing date *(day/month/year)* 13 January 2004 (13.01.2004)	Priority date *(day/month/year)*
International Patent Classification (IPC) or national classification and IPC IPC(7): B60T 1/00 and US Cl.: 188/4B; 280/757; 152/208		
Applicant FRED SMITH		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets, including this cover sheet.

   ☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

   These annexes consist of a total of 19 sheets.

3. This report contains indications relating to the following items:

   - I ☒ Basis of the report
   - II ☐ Priority
   - III ☐ Non-establishment of report with regard to novelty, inventive step and industrial applicability
   - IV ☐ Lack of unity of invention
   - V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
   - VI ☐ Certain documents cited
   - VII ☐ Certain defects in the international application
   - VIII ☐ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
14 August 2005 (14.08.2005)	22 November 2005 (22.11.2005)
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/ US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer Christopher P. Schwartz Telephone No. (571) 272-3600

Form PCT/IPEA/409 (cover sheet)(July 1998)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US04/00847

I. Basis of the report

1. With regard to the **elements** of the international application:*

☐ the international application as originally filed.

☒ the description:
pages NONE as originally filed
pages 1-13, filed with the demand
pages NONE, filed with the letter of _____.

☒ the claims:
pages NONE, as originally filed
pages NONE, as amended (together with any statement) under Article 19
pages 14-17, filed with the demand
pages NONE, filed with the letter of _____.

☒ the drawings
pages 1-10,13, as originally filed
pages 11-12, filed with the demand
pages NONE, filed with the letter of _____.

☐ the sequence listing part of the description:
pages NONE, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule23.1(b)).

☐ the language of publication of the international application (under Rule 48.3(b)).

☐ the language of the translation furnished for the purposes of international preliminary examination(under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in printed form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

☐ the description, pages NONE

☒ the claims, Nos. 2,4,5,13,15,16,19

☐ the drawings, sheets/~~fig~~ NONE

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

** Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).*

*** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.*

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US04/00847

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N)	Claims 1,3,6-12,14,17,18,20-27	YES
	Claims NONE	NO
Inventive Step (IS)	Claims 1,3,6-12,14,17,18,20-27	YES
	Claims NONE	NO
Industrial Applicability (IA)	Claims 1,3,6-12,14,17,18,20-27	YES
	Claims NONE	NO

2. CITATIONS AND EXPLANATIONS

Claims 1,3,6-12,14,17,18,20-27 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest a chain traction system having a sealed housing which comprises input and output apertures; an electric drive motor having a reversible rotational output secured to the housing and having an armature shaft extending through the input aperture; an intermediate drive shaft rotatably mounted within the sealed housing; a spring loaded clutch coupled to the intermediate drive shaft with the clutch limiting the amount of torque which may be applied to the intermediate drive shaft; a speed reduction gear train interposed between the armature shaft and the spring loaded clutch; a worm axially installed on the intermediate drive shaft; an output shaft rotatably mounted within the sealed housing and extending through the output aperture; a deployment arm coupled to a portion of the output shaft that is external to the sealed housing, the deployment arm having rotatably mounted thereto a friction drive disc, the friction drive disc having peripherally attached thereto a plurality of chain segments; a worm gear coupled to the output shaft, which meshes with the worm on the intermediate drive shaft, rotational movement of the worm imparting rotational movement to the output shaft; and a shock damper coupled to the output shaft which mitigates shock loads applied to the worm and worm gear, the shock loads associated with rotational moments of the deployment arm caused primarily by uneven road surfaces; and means for limiting torque applied to the output shaft by the electric motor.

The prior art of record neither alone, or in combination, anticipates or renders obvious the claimed limitations in the independent claims

---------- NEW CITATIONS ----------

NONE